

RESPONSE

Support

Applicants have amended claims 1 and 35 to specify that the diisocyanate includes diphenylmethane-4,4'-diisocyanate, the symmetrical chain extender includes 1,4-butanediol, and the co-chain extender includes 1,3-butanediol. Support for these amendments is found in claims 43 and 45, as well as the specification.

Applicants have amended claim 7 to conform the changes to claim 1, removing features from the claim now included in claim 1. Support for these amendments is found in the claim itself.

Applicants have amended claims 44 and 46 to depend on claims 1 and 35 respectively, and to make it clear that the mole ratio referred to in the claim is a calculated mole ratio determined by dividing the two identified values, resulting in a number and that the ranges in the claim are for this calculated number. Support for these amendments is found in paragraph [0024] of the specification.

Applicants have cancelled claims 6, 10, 42, 43, and 45.

Applicants have added new claims 47 and 48 which further specify the composition described in the claimed composition and process, respectively, has a reduced sensitivity to shear ($V_f(T_m+15)$) of 5 or less). Support for these amendments is found in paragraph [0046] of the specification.

No other elements of the claims have been changed.

Remarks

The Examiner rejected claims 10 and 42 under 35 U.S.C. §112, first paragraph. Applicants have cancelled these claims making the rejection moot.

The Examiner rejected claims 44 and 46 under 35 U.S.C. §112, second paragraph. Applicants have amended these claims to make it clear that the mole ratios referred to in the claims are calculated mole ratios determined by dividing the two identified values for each ratio, resulting in a number and that the ranges in the claim are for this calculated number. As is typical with mole ratios, the ranges used in the claim, including, for example 0.98 to 1.03, could also be expressed in relation to a 1, that is 0.98 to 1.03:1. This is well understood by people skilled in the art, and

Applicants feel it would be clear to those skilled in the art reading paragraph [0024] of the specification, when taken together with the rest of the application. Therefore, Applicants respectfully request that the current rejections under this section be removed.

The Examiner rejected claims 1, 3, 4, 6, 7, 10, 13, 19, 20, 23, 24, 27, 28, 31, 32, 35 to 39, and 42 to 46 under 35 U.S.C. §103(a) as unpatentable over Ehrlich (US 4379904) in view of van Der wal (US 4980445) and Mao (US 4124572). The Examiner continues to find that the combination of references would have allowed one skilled in the art at the time of filing to arrive at the present invention and that the required combination of elements would have been obvious to the skilled person. In light of the amendments included in this response and the following remarks, Applicants respectfully disagree.

Applicants have previously argued that the present invention represents a selection over the combination of references cited by the Examiner and have cited the data in the specification as filed in support of this position. Applicants refer to their previous responses and incorporate them here by reference. The Examiner has appeared open to this position but has presented two main issues: (1) that the claims are not commensurate in scope with the claims being sought, and (2) that the data provided does not include a comparative example fairly representative of the closest prior art.

With regards to item (1), Applicants have amended the claims narrowly around the specific examples included in the specification. The current claims now specify, among other things, that the isocyanate is diphenylmethane-4,4'-diisocyanate, the symmetrical chain extender is 1,4-butanediol, and the co-chain extender is 1,3-butanediol. This is consistent with the inventive examples in the specification. Applicants also note that the claims include various features that limit the specific formulations covered by the claim and that the data set in the specification includes multiple formulations with various ratios of the components. Therefore, Applicants respectfully submit that the current claims are commensurate in scope with the data presented in the specification.

With regards to item (2), Applicants note that the declaration included in our last response, dated June 14, 2010 and signed by Donald A. Meltzer, included a new

comparative example, Example B. This Example was prepared according to the present invention except that the PTMEG co-polyol was replaced with Poly G 55-112, a commercially available 1000 MW poly(oxyethylene-co-oxypropylene) diol having an EP content of about 50 percent by weight. Applicants respectfully submit that this comparative example is fairly representative of Ehrlich and thus addresses the Examiner's concerns. The declaration clearly shows better taber abrasion (lower results indicate better performance for the test completed) for inventive example A compared to comparative example B. The poly(oxyethylene-co-oxypropylene) diol used in the comparative example was the closest materials Applicants could find to the specific materials used in Ehrlich. If the Examiners feels this example is not representative of Ehrlich, Applicants ask for the Examiner to provide specific guidance on what aspects of the example the Examiner has issues with.

Furthermore, even if the Examiner is not persuaded by the above remarks, Applicants note that new claims 47 and 48 go still further by specifying that the compositions covered by the claims must have a $V_f(T_m+15)$ of 5 or less. This feature has to do with the compositions sensitivity to shear with lower values indicating reduced sensitivity to shear, which is very desirable for the compositions of the present invention. With this amendment, Examples 3, 12 and 13 in the specification are now comparative examples with regards to these new claims, as they all have $V_f(T_m+15)$ values of 6. Inventive Examples 2, 5, 9, 10, 14, and 16 have $V_f(T_m+15)$ values of 4 or 5 and so still fall under the new claims. Even if the Examiner finds the comparative example above is lacking in some regard, examples 3, 12 and 13 should be considered representative comparative examples with regards to new claims 47 and 48, for which the remaining inventive examples show the unexpected improvement in performance necessary to support a selection. For these reasons, at least claims 47 and 48 should be found allowable, if not all of the currently pending claims.

Applicants respectfully submit that the present claims are now commensurate in scope with the data provided in the specification and that Example B, provided in the previously submitted declaration, fairly represents prior art, specifically Ehrlich. Therefore, Applicants have addressed the Examiner's concerns and submit that the present claims represent a patentable selection over the cited references. We ask that the current rejection be removed and that the claims be allowed.

Conclusion.

For the foregoing reasons, it is submitted that the present claims are novel and unobvious over the cited reference, and in condition for allowance. The foregoing remarks are believed to be a full and complete response to the outstanding Office Action. Therefore, an early and favorable reconsideration is respectfully requested. If the Examiner believes that only minor issues remain to be resolved, a telephone call to the Undersigned is suggested.

Any required fees or any deficiency or overpayment in fees should be charged or credited to Deposit Account 50-1501 (The Lubrizol Corporation).

Respectfully submitted,

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